

REMARKS/ARGUMENTS

Reconsideration of this application in light of the above amendments and following comments is courteously solicited.

Independent claim 1 has been amended so as to specify that the thin film contains 25 volume % carbon. In accordance with the present invention, when the FePtC thin film contains 25 volume % carbon, the advantages of the present invention are achieved in that the coercivity of the thin film is 4.4 kOe, the grain size of the thin film is 5.2 nm and its grain size distribution is uniform thereby allowing the thin film to be suitable for a magnetic record. It is respectfully submitted that claim 1 as amended patentably defines over the Christodoulides et al. reference.

Christodoulides et al. does not disclose the claimed volume percent of carbon present in the FePtC layer as now claimed. Further, Christodoulides et al. discloses a multi-layer thin film including FePt and carbon, and its structural and magnetic properties. According to Christodoulides et al., the change of coercivity and fine structure of the multi-layer thin film is observed when a carbon content in the multi-layer thin film is varied. However, this technology is disadvantageous in that the multi-layer thin film is heat-treated at a relatively high temperature of 700°C after a deposition process, and the high temperature causes various problems in a process of producing the multi-layer thin film. Another disadvantage is that a noise of a magnetic recording medium including the multi-layer thin film is increased because the multi-layer thin film has a nonuniform FePt grain size distribution, and also, the noise of the magnetic recording medium is increased because squareness ratio is decreased less than 1 (refer to [0007] of the specification of the present invention).

Accordingly, the present invention as claimed has been made

keeping in mind the above problems occurring in Christodoulides et al. When the FePtC thin film contains 25 volume % carbon, the present invention is advantageous in that the coercivity of the FePtC thin film is 4.4 kOe, the grain size of the FePtC thin film is 5.2 nm, and its grain size distribution is uniform, thus the FePtC thin film suitable to the magnetic record is secured. Christodoulides et al. does not disclose the specific structure (in particular, 25 volume % carbon contained in FePtC thin film) and said effect of the present invention.

In light of the foregoing, it is respectfully submitted that claim 1 is patentable over the cited Christodoulides et al. reference and an early indication of same is respectfully requested.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

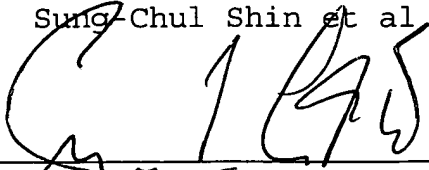
It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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I, Rachel Piscitelli, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:
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